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**New tribal assignment of the genus *Nobarnus* DISTANT, 1920
(Hemiptera: Tingidae) with a description of *N. kotejai* sp. n.
from New Caledonia**

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ABSTRACT. The genus *Nobarnus* DISTANT, 1920 is transferred from the tribe Tingini to Litadeini on the basis of the morphology of tarsi. *N. kotejai* sp. n. from New Caledonia, the sixth species of the genus is described, illustrated and compared with its relatives. GUILBERT's key (1998) to known species of the genus is extended to accommodate the new one.

KEY WORDS: Hemiptera, Heteroptera, Tingidae, Tinginae, Tingini, Litadeini, *Nobarnus*, new species, key to species, New Caledonia.

INTRODUCTION

The New Caledonian endemic genus *Nobarnus* DISTANT, 1920 was recently revised by GUILBERT (1998). In this paper, all known species of the genus were redescribed and three new ones were described, namely: *N. signatus* (DISTANT, 1920), *N. typicus* DISTANT, 1920, *N. albiceps* GUILBERT, 1998, *N. nigriceps* GUILBERT, 1998, and *N. pilosus* GUILBERT, 1998.

The most distinctive characters of the genus are: short head; slender antennae with first segment relatively long; tricarinate pronotum; paranota composed of one large hyaline cell emarginated by a simple carina or, additionally, by a single row of areolae; broad hemelytra, strongly widened at base; a convex surface of hemelytra covering the body (formed by the subcostal area, discoidal area, and a part of sutural area) composed of areolae smaller than those in the other parts of hemelytra; phallus without phaneres (DISTANT 1920, GUILBERT 1998).

The other interesting character of the genus, not considered by the former authors, is a structure of the tarsi, namely distinctly swollen second segments bearing thick bristle-like hairs on their lower surface. According to DRAKE & RUHOFF (1965) and FROESCHNER

(2001) such a structure of tarsi is distinctive of the tribe Litadeini. Basing on this fact, I propose herein to transfer the genus *Nobarnus* DISTANT, 1920 from tribe Tingini to the tribe Litadeini.

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DESCRIPTION OF SPECIES

Genus *Nobarnus* DISTANT, 1920

Type species: *Nobarnus typicus* DISTANT, 1920

Nobarnus kotejai sp. n. (Fig. 1)

Diagnosis

This new species resembles *N. pilosus* GUILBERT, but they both can easily be separated on the basis of several differences: (1) occipital cephalic spines short and straight in *N. kotejai* (they are longer and curved inwards in *N. pilosus*); (2) the second antennal segment short in *N. kotejai*, more than three times shorter than first antennal segment (the second antennal segment longer in *N. pilosus*, less than twice shorter than first segment); (3) subcostal and discoidal areas very indistinctly limited in *N. kotejai* (the vein R+M limiting mentioned areas well developed in *N. pilosus*); (4) antennae bear long hairs only on the first segment in *N. kotejai* (all antennal segments are covered with long hairs in *N. pilosus*).

Description

Measurements (in mm): body length 4.10; maximum body width 2.94; pronotal length 1.40; pronotal width 1.22; length of antennal segments 0.66 : 0.16 : 1.12 : 0.96.

Head black, densely pilose, armed with two pairs of short, yellowish brown spines; frontal spines directed forward, occipital spines very short, adjacent to head surface; eyes black, frons about 3.5 times as wide as the eye width. Bucculae yellowish brown, closed anteriorly, triseriate in their posterior part, narrowed apically, composed of two rows of areolae in their anterior part; rostrum short, not extending to metasternum. Antenniferous tubercles brown, short and blunt; antennae long, yellowish brown, segment IV dark brown in its $\frac{3}{4}$ apical part; segment I long, covered with short adjacent hairs and very long, apically curved, golden hairs; segment II short, more than three times shorter than segment I; segments II-IV with vestiture of short bright hairs.

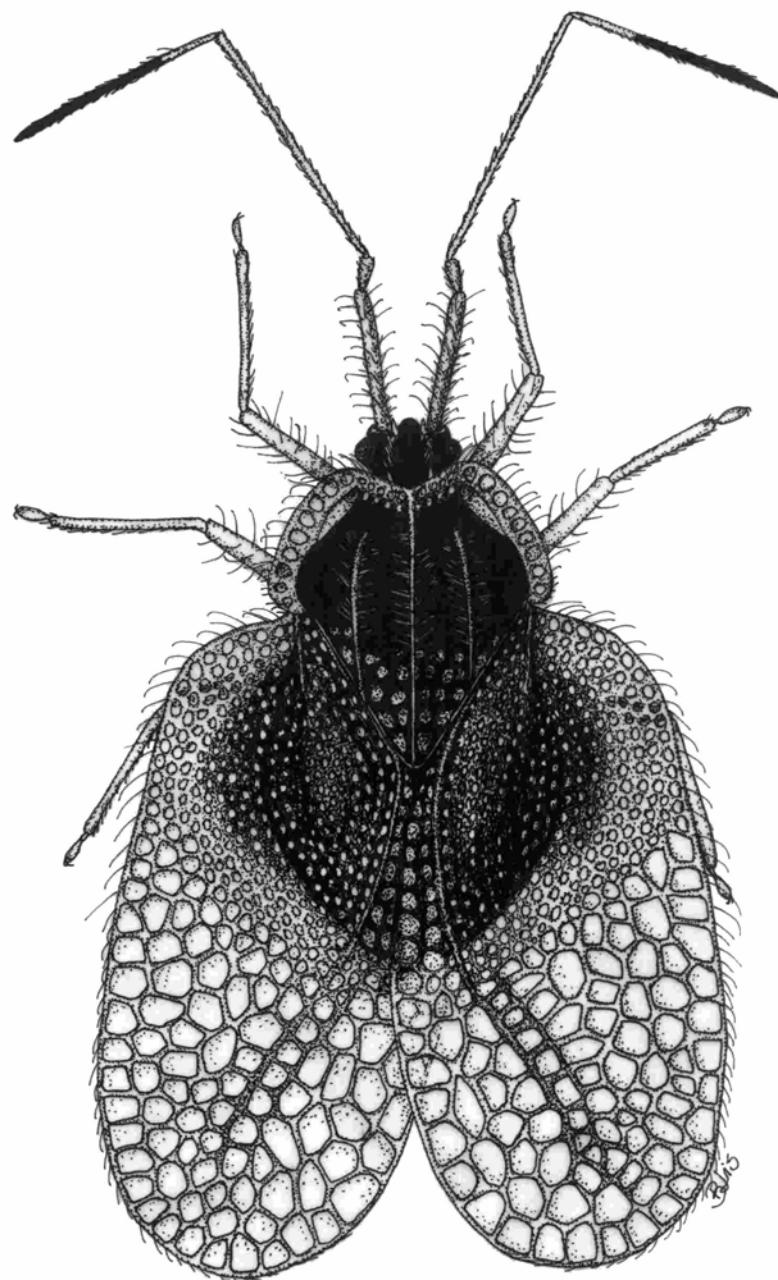


Fig. 1. *Nobarnus kotejai* sp. n. – holotype, dorsal habitus.

Pronotum pilose, lateral margins of paranota and anterior margin of collar with long apically curved golden hairs, pronotal disc with long bright hairs adjacent to its surface. Pronotal disc convex, punctured, dark brown to black, paranota and anterior margin of collar yellowish brown; triangular pronotal process areolated; paranota moderately broad, hyaline, with a marginal row of areolae; three longitudinal pronotal carinae low, without areolae.

Hemelytra broad, sharply widened at base, areolae hyaline; the dark places of hemelytra covered with long apically curved hairs; lateral margins of hemelytra also bearing hairs – long in their anterior half, short in their posterior half. Costal area yellowish brown with dark brown spots in its anterior third, very broad, composed of 8-9 rows of areolae in its widest part; areolae relatively large, except the dark spots, where the areolae are small. Subcostal and discoidal areas indistinctly limited (vein R+M visible only in its base), both areas dark brown to black, composed of small areolae: subcostal area – 4-5 rows, discoidal area – about 7 rows of areolae in its widest part. Sutural area dark brown in its anterior half, yellowish brown in its posterior half, the area composed of 4 rows of areolae in its widest part; vein Cu very distinct, almost laminate.

Legs testaceous, pilose, the longest hairs covering profemora, second tarsal segment swollen, bearing well visible bristle-like hairs on their lower surface.

Thoracic and abdominal sterna dark brown to black; margins of peritreme and the sternal laminae forming rostral groove yellowish brown.

Type material

Holotype female: New Caledonia (N), 21°09'S / 165°19'E, Aoupinié 420–530 m, road to sawmill, 7. 02. 2004, leg. M. Wanat (deposited at the Muséum National d'Histoire Naturelle, Paris).

Etymology

This new species is dedicated to the late Professor JAN KOTEJA, the eminent Polish specialist on the taxonomy and classification of fossil and recent Hemiptera.

KEY TO THE SPECIES OF *NOBARNUS*

The GUILBERT's (1998) key is modified, as follows:

1. Body length less than 3 mm; head pale *N. albiceps* GUILBERT
- . Body length exceeds 3 mm; head dark 2
2. Body densely pilose 3
- . Body almost glabrous 5
3. Head with occipital spines 4

- . Head without occipital spines *N. signatus* (DISTANT)
- 4. Second antennal segment more than three times shorter than the first one; subcostal and discoidal areas indistinctly limited *N. kotejai* sp. n.
- . Second antennal segment less than twice shorter than the first one; subcostal and discoidal areas distinctly limited *N. pilosus* GUILBERT
- 5. Paranota narrow without a row of areolae *N. nigriceps* GUILBERT
- . Paranota with a row of areolae *N. typicus* DISTANT

REFERENCES

DRAKE C.J., RUHOFF F.A. 1965. Lace Bugs of the World, a Catalog (Hemiptera: Tingidae). U.S. Natn. Mus. Bull. **243**: i–iii, 634 pp., 56 pl.

DISTANT W.L. 1920. Rhynchota from New Caledonia. Ann. Mag. Nat. Hist. (9) **6**: 143–64.

FROESCHNER R.C. 2001. Lace Bug Genera of the World, II: Subfamily Tingidae: Tribes Litadeini and Ypsotingini (Heteroptera: Tingidae). Smiths. Contr. Zool. **611**: 1–28.

GUILBERT E. 1998. Revision of the New Caledonian genus *Nobarnus* (Hemiptera: Tingidae) with description of three new species. Eur. J. Entomol. **95**: 395–406.

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